

PS-LX70

SERVICE MANUAL

*AEP Model
UK Model*



SPECIFICATIONS

Turntable

Platter	30 cm (12 in.), aluminum-alloy diecast
Motor	DC servo motor
Drive system	Belt drive
Control system	DC servo control system
Speed	33 $\frac{1}{3}$ rpm, 45 rpm
Starting characteristics	Comes to nominal speed within a half revolution (33 $\frac{1}{3}$ rpm)
Wow and flutter	0.045% (WRMS) $\pm 0.06\%$ (DIN)
Signal-to-noise ratio	70 dB (DIN-B)
Automatic system	Lead-in, return, reject, repeat, record size selection

Tonearm

Type	Dynamic balance type Low mass straight
Pivot-to-stylus length	200 mm
Overall length	235 mm
Tracking error	+3°30' ~ -1°

Cartridge

Type	Stereo MM type
Frequency response	20 - 20,000 Hz
Channel separation	Over 16 dB (1 kHz)
Output voltage	3 mV (1 kHz 10 cm/s) (DIN)
Tracking force	2 g
Replacement stylus	SONY ND-142G
Weight	7 g

Power and others

Power	AEP model: 220V ac, 50/60Hz UK model: 240V ac, 50/60 Hz
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Consumption power

6 W


Maximum outer dimensions

355 × 90 × 330 mm (14 × 3 $\frac{1}{2}$ × 13 inches)
(Width × Height × Length)

Weight

2.7 kg (5 lb 15 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

STEREO TURNTABLE SYSTEM
SONY®



SECTION 1 DISASSEMBLY AND ASSEMBLY

1-1. REMOVAL

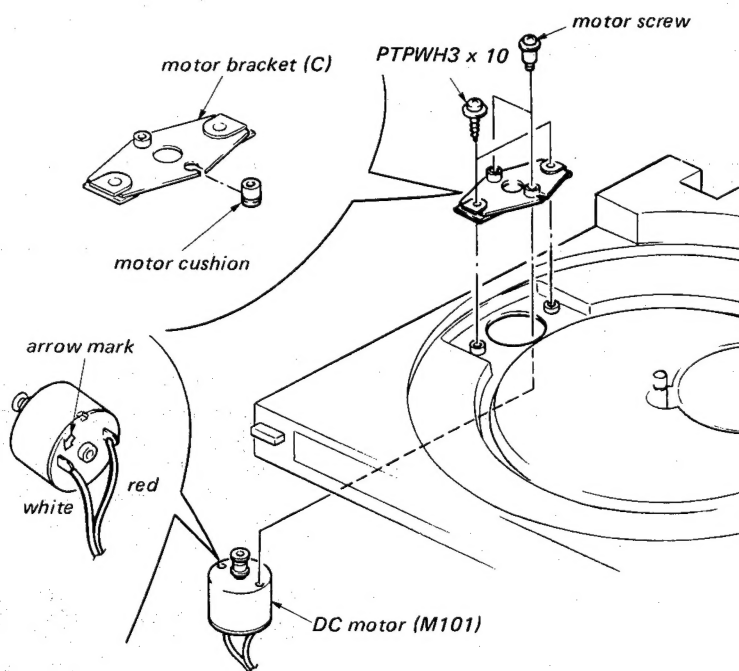
Note: Follow the disassembly procedure in the numerical order given.

Remove the dust cover and
the turntable.

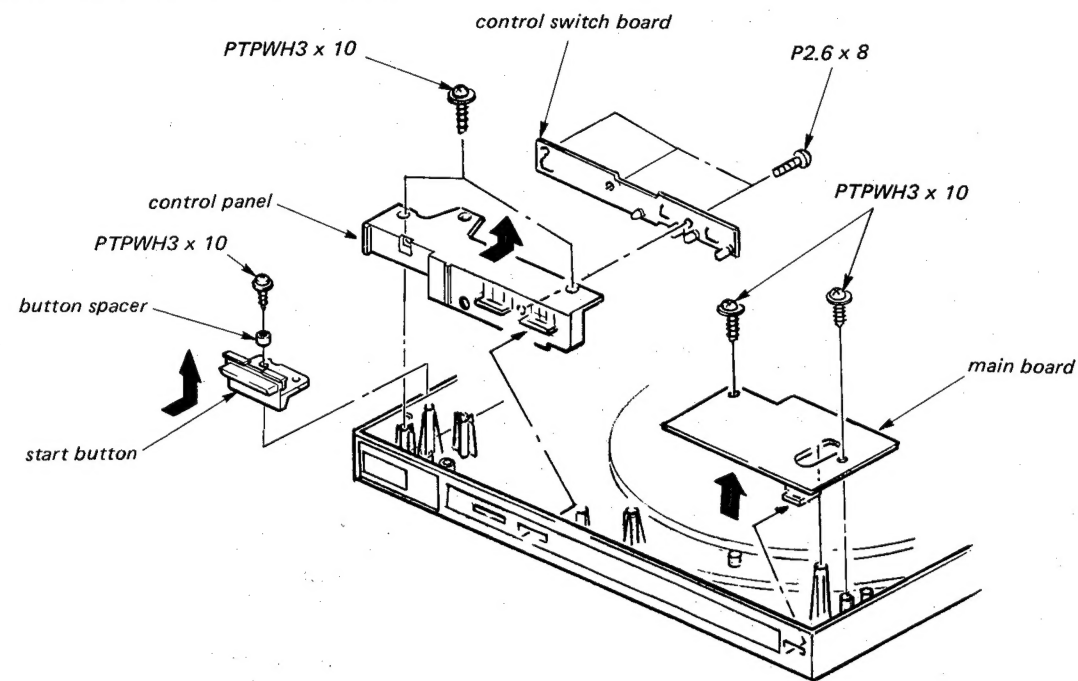
BOTTOM PLATE

Remove 7 screws (BVTP3 x 12) of the
bottom plate and 2 screws (BTP3 x 16)
of the insulator.

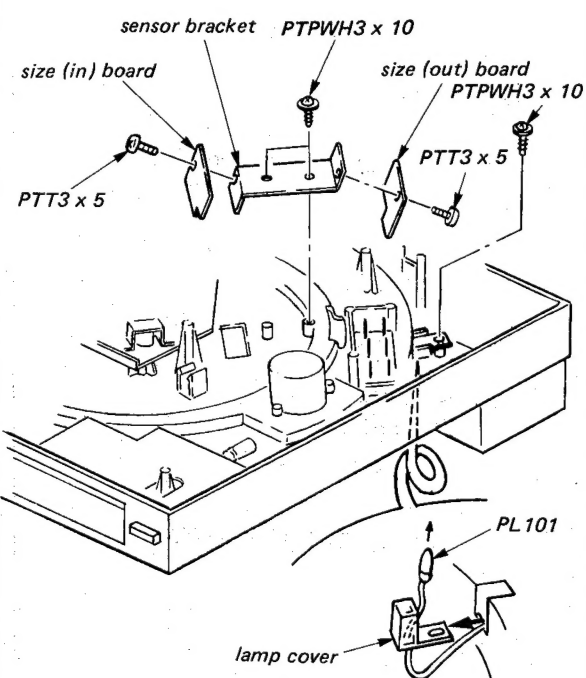
DC MOTOR (M101)



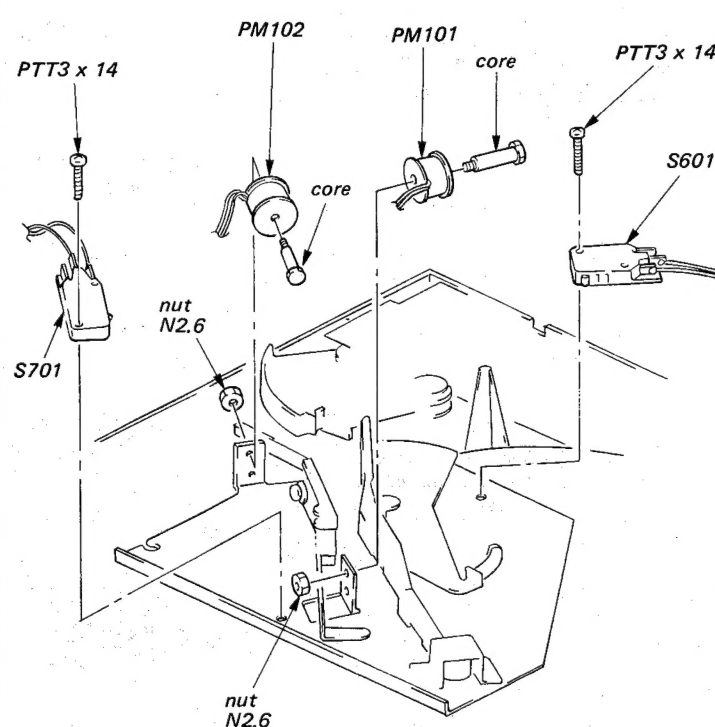
MAIN BOARD, CONTROL SWITCH BOARD



SIZE (IN) BOARD, SIZE (OUT) BOARD, PL101

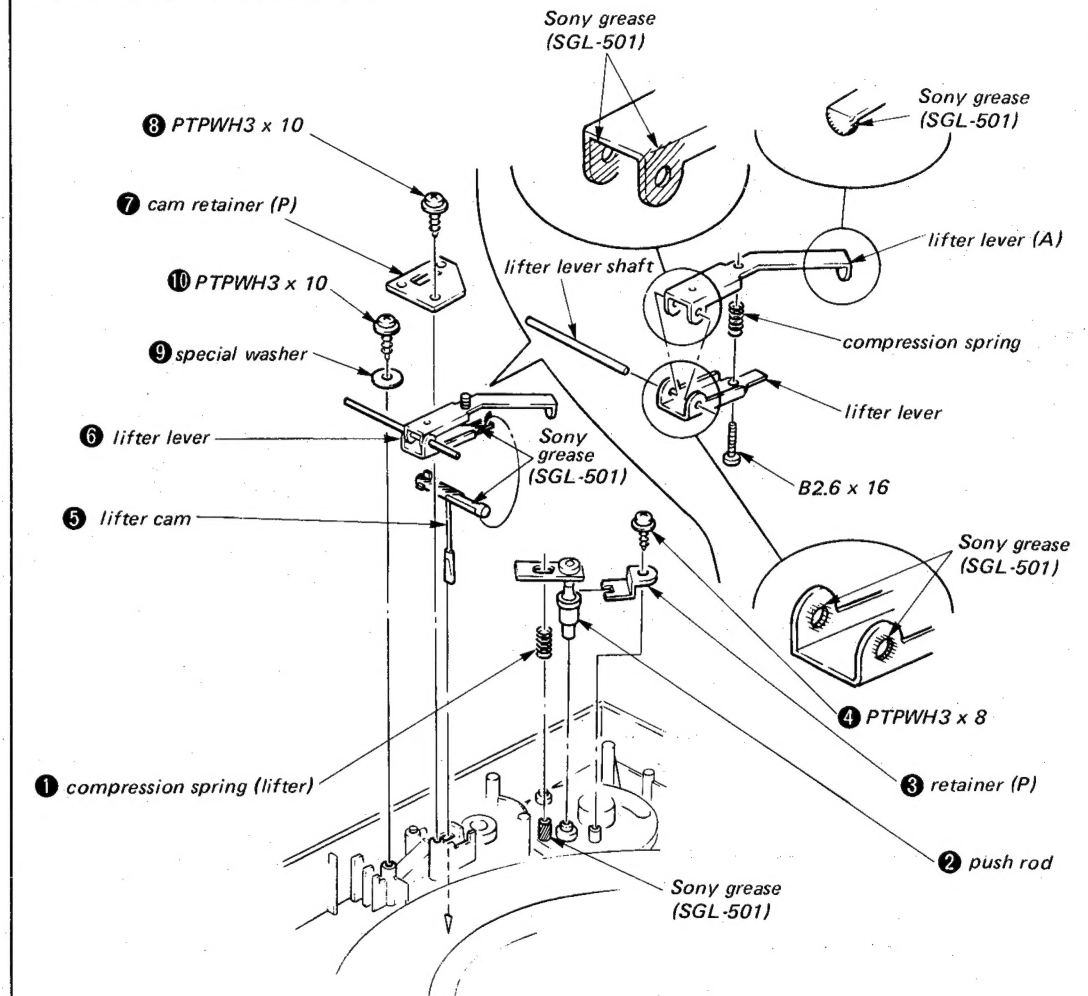


S601, S701, PM101, PM102



1-2. INSTALLATION Note: Follow the assembly procedure in the numerical order given.

PUSH ROD, LIFTER LEVER

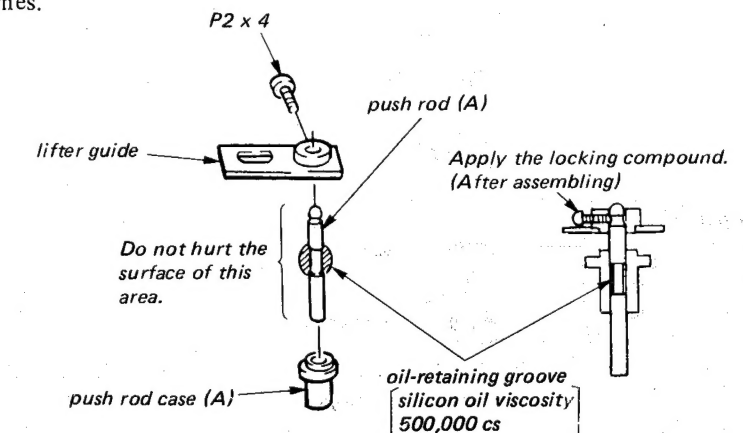


• LUBRICATION TO THE PUSH ROD

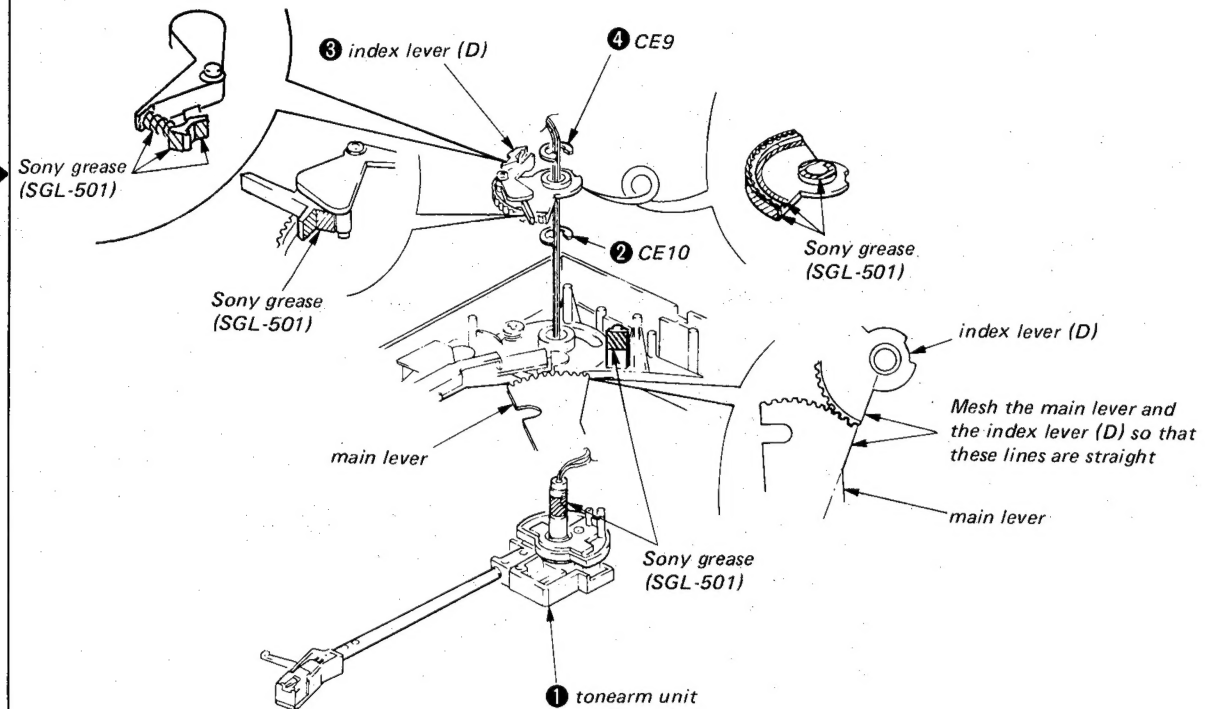
Note:

When the push rod is replaced, apply silicon oil (viscosity: 500,000 cs) to the push rod as illustrated below.

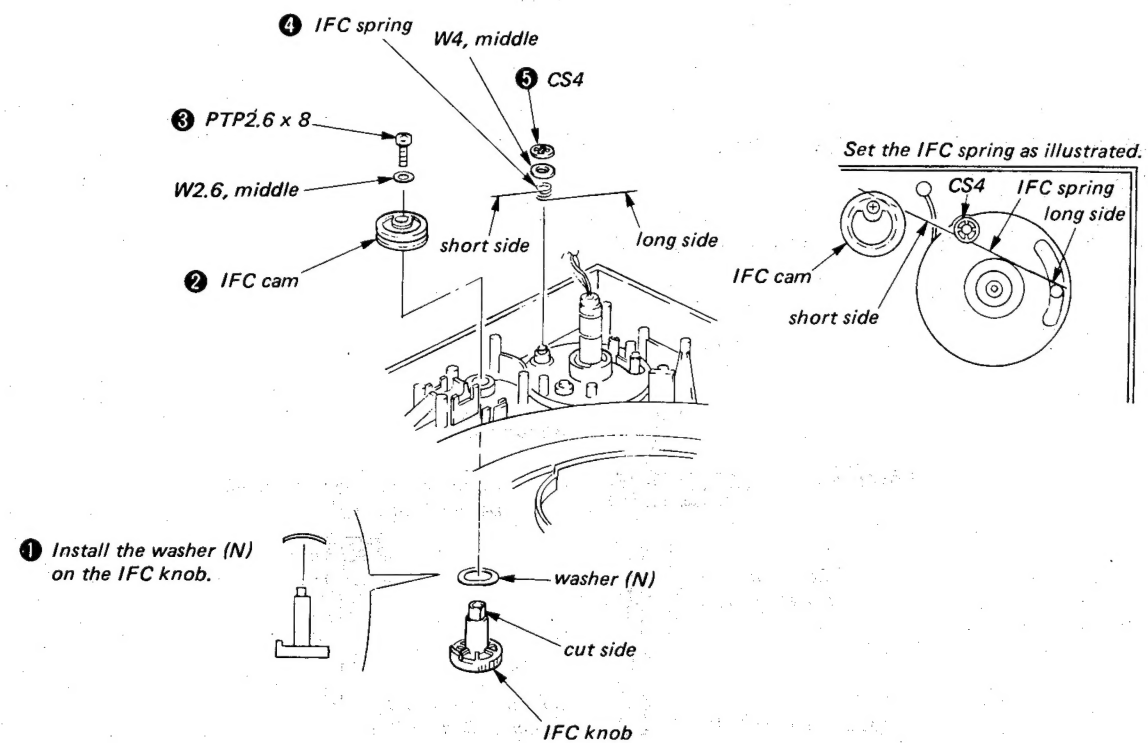
When lubricating, rotate and move the push rod up and down a few times.



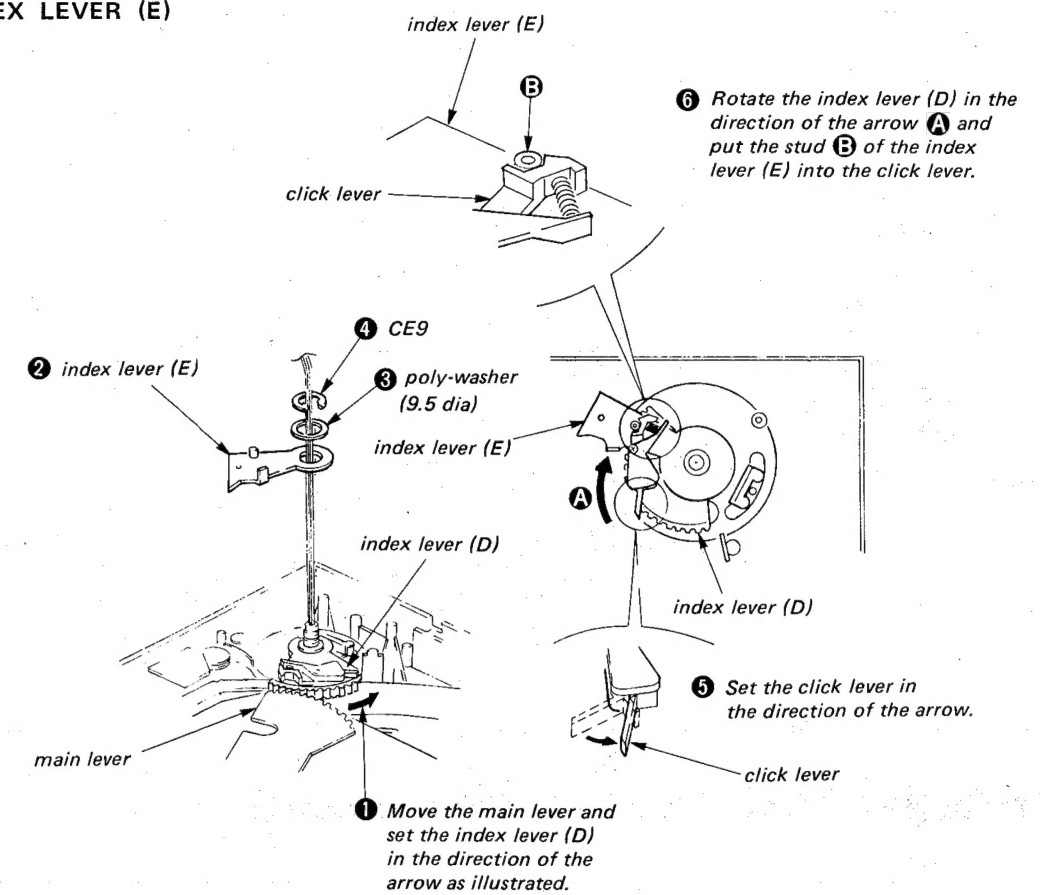
TONEARM UNIT, INDEX LEVER (D)



IFC KNOB

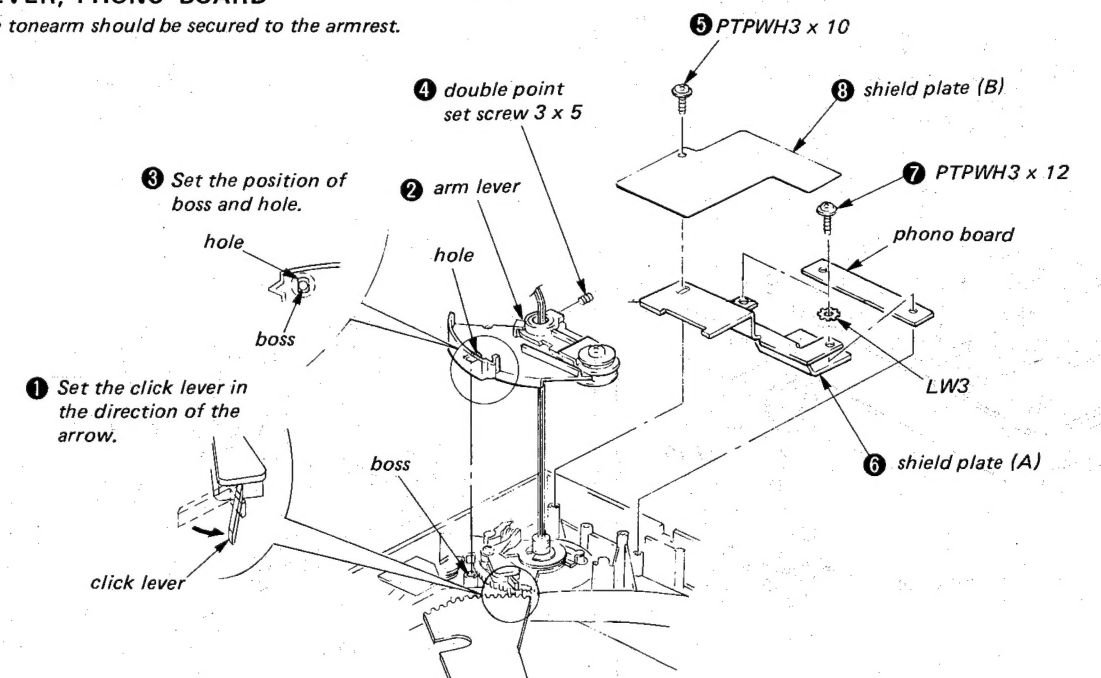


INDEX LEVER (E)

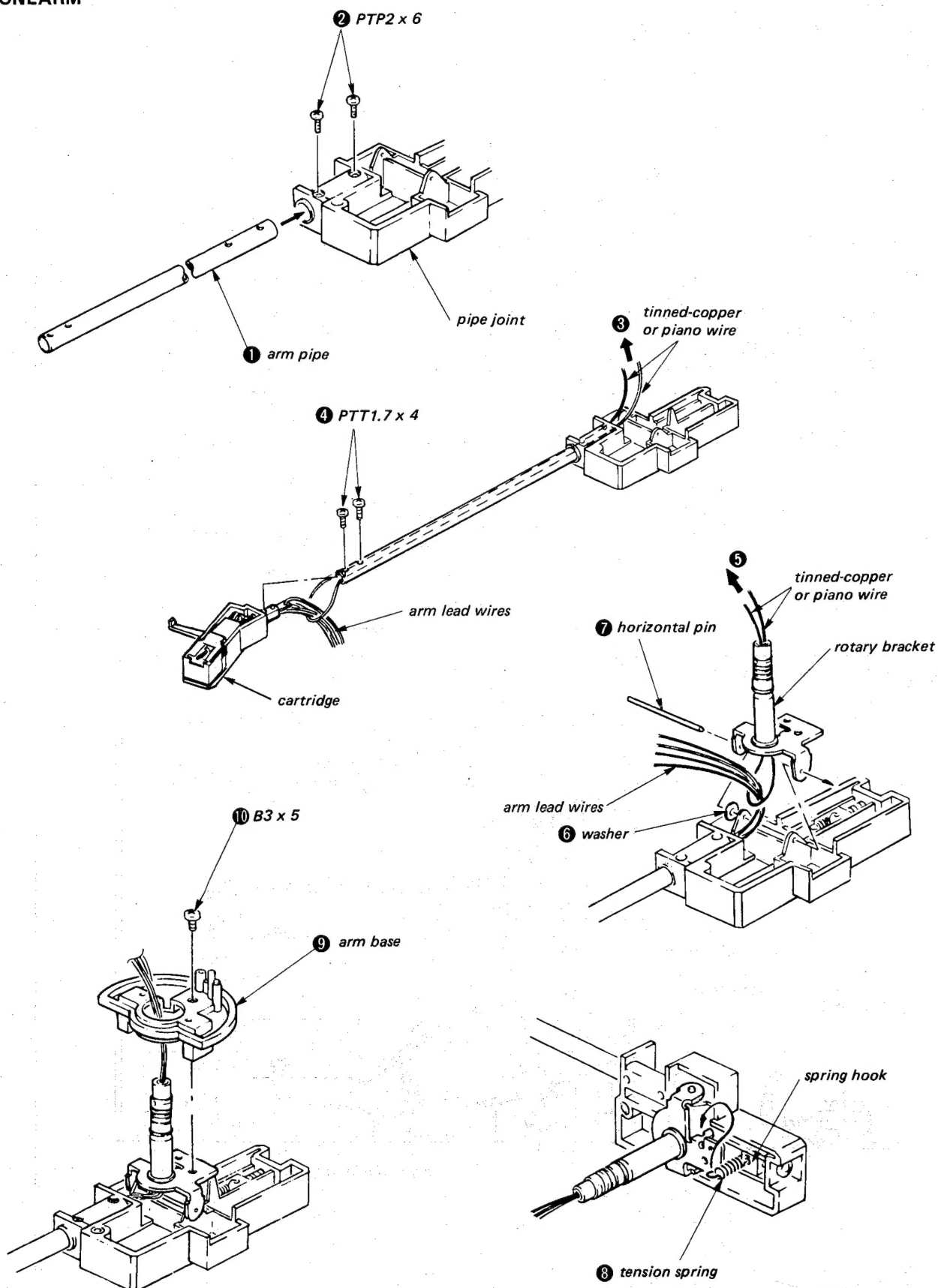


ARM LEVER, PHONO BOARD

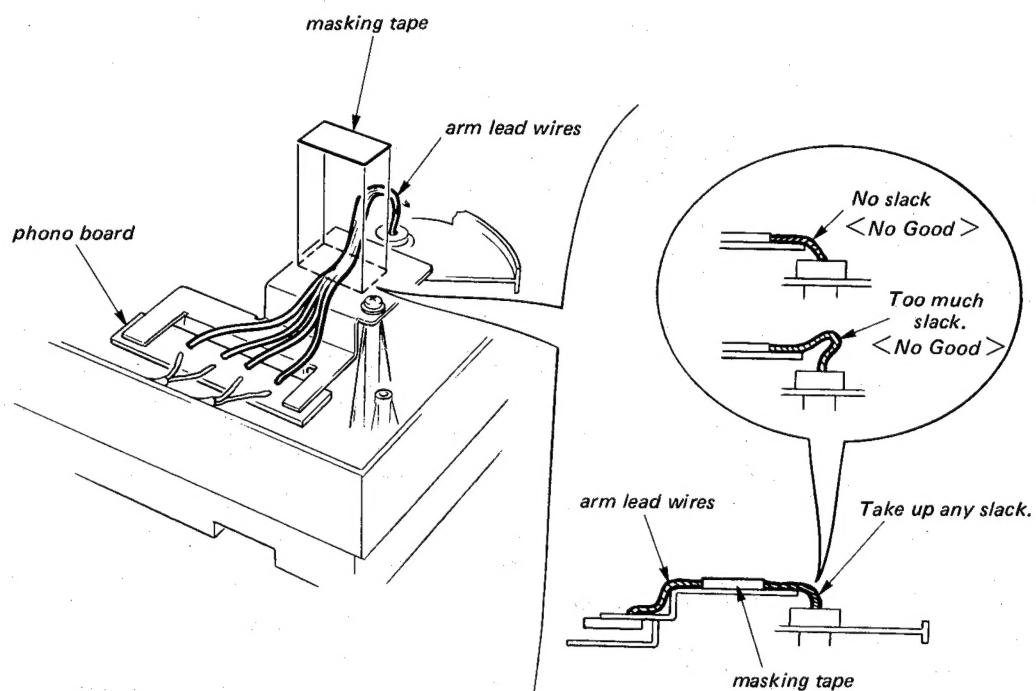
Note: The tonearm should be secured to the armrest.



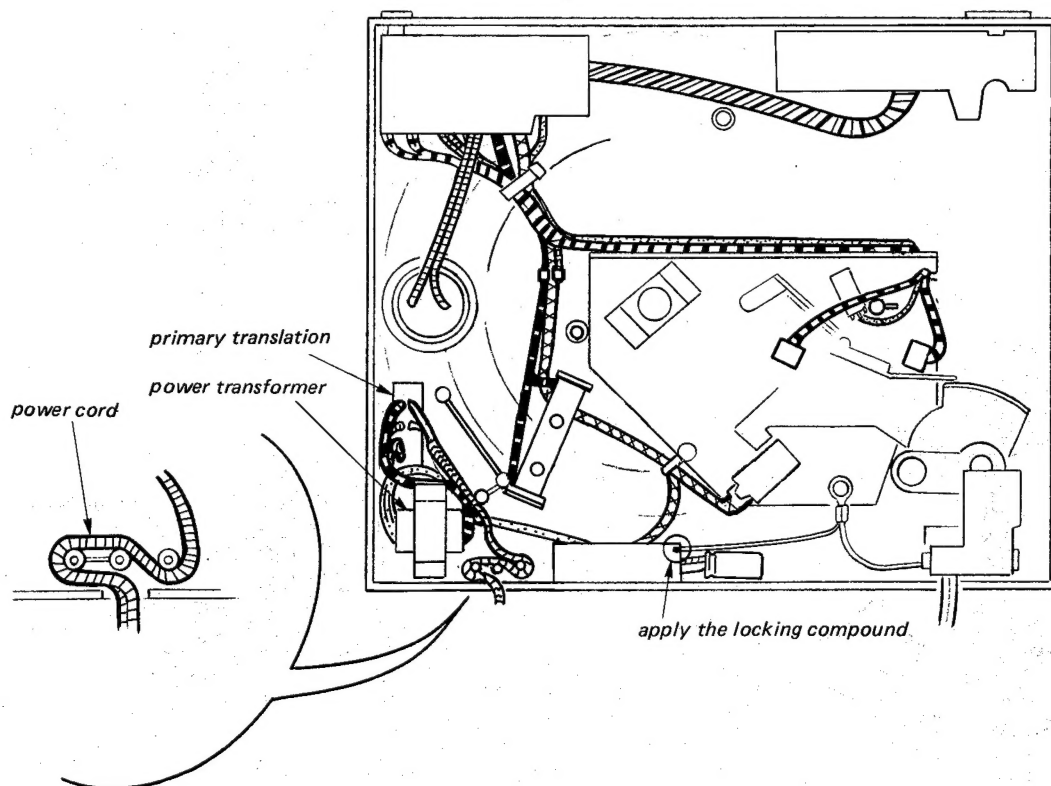
TONEARM



ARRANGEMENT OF ARM LEAD WIRES



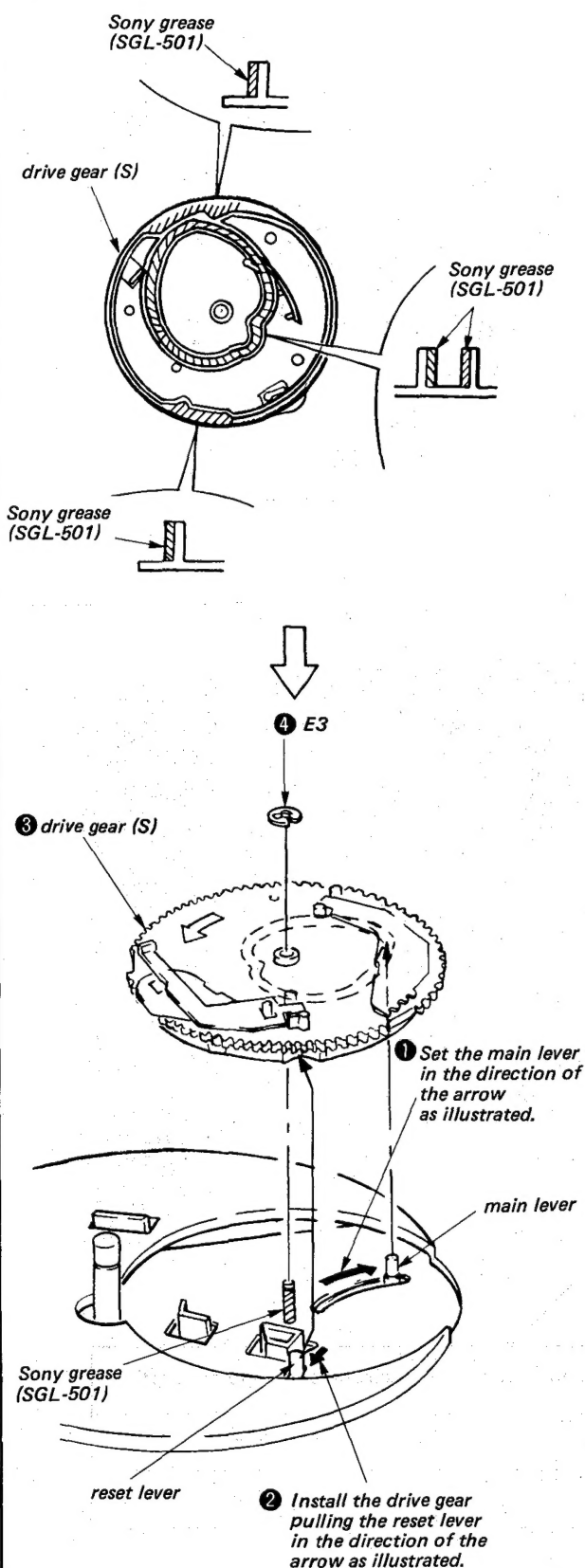
LEAD WIRES COMBINATION



SECTION 2 ADJUSTMENTS

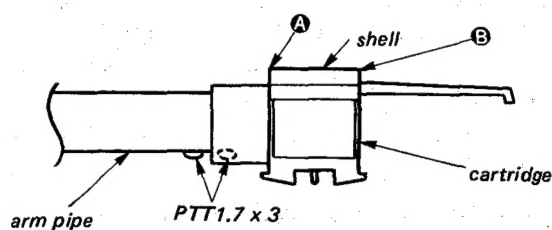
2-1. MECHANICAL ADJUSTMENTS

DRIVE GEAR



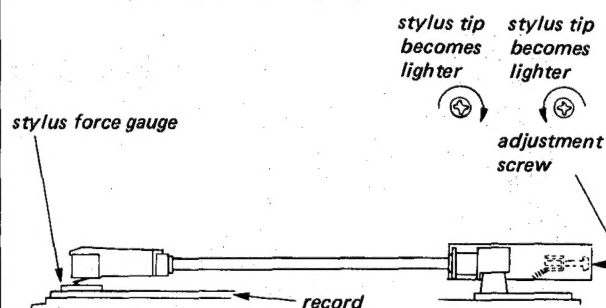
Cartridge Level Adjustment

Loosen the two screws and adjust the inclination of the cartridge so that the line of the point **A** and point **B** becomes horizontal against turntable. After the adjustment, secure two screws.



Stylus Force Adjustment

Turn the adjustment screw so that stylus force becomes 2g on stylus force gauge.



Brake Lever Position Adjustment

1. Rotate the drive gear in the direction of the arrow as Fig. 1 and set the main lever in the position ① as illustrated.
2. Pressing the size lever in the direction of arrow as Fig. 2, adjust the adjustment screw so that the clearance for portion A is 0.2mm to 0.6mm.
3. Rotate the drive gear again, and set the main lever in the position ② as illustrated.
4. Make sure to obtain some clearance for portion B in Fig. 2.
5. Rotate the drive gear again, and set in its original position.
6. Secure the adjustment screw with locking compound.

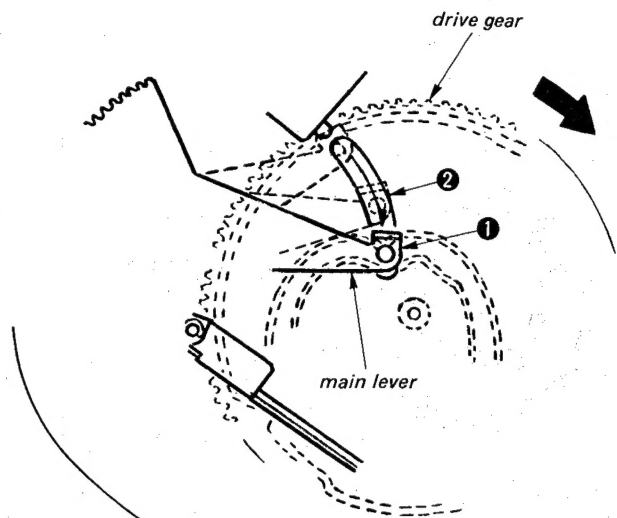


Fig. 1

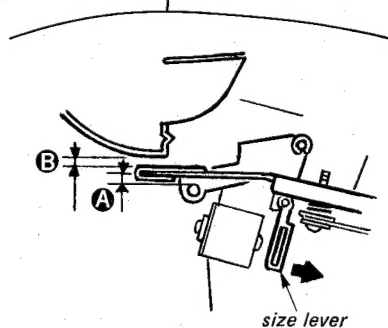
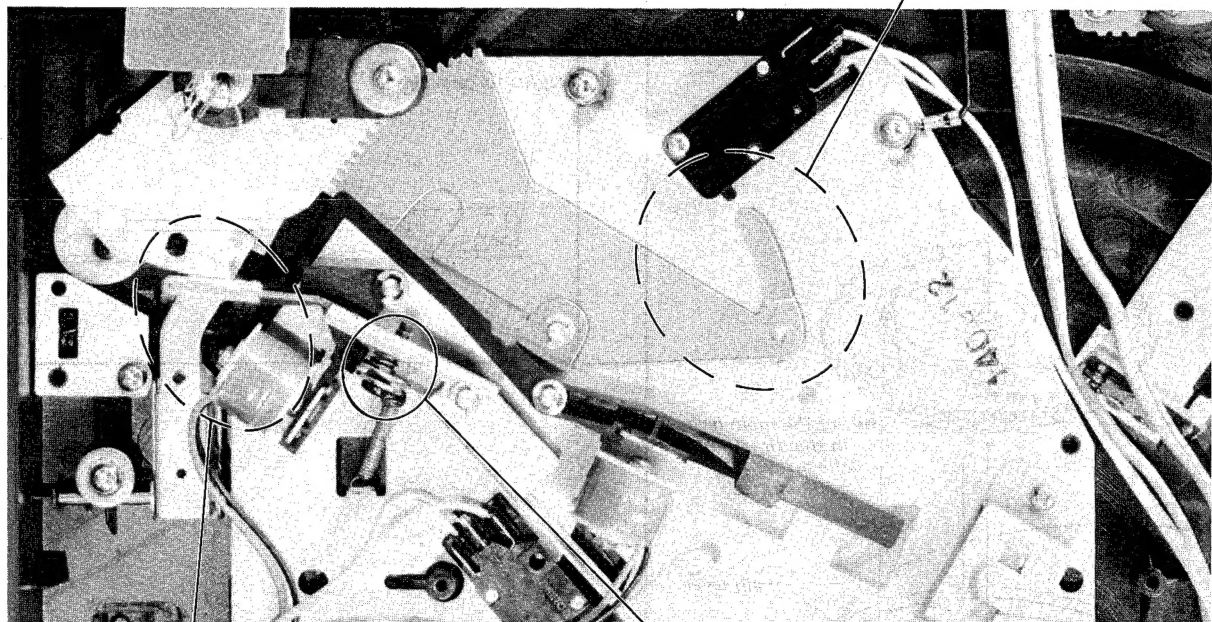




Fig. 2

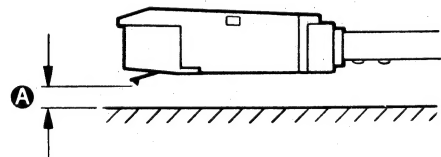
adjustment screw	clearance for portion A
	narrow
	widen

Stylus Height Adjustment

Note: Perform both adjustments for manual and automatic operations.

1. Automatic

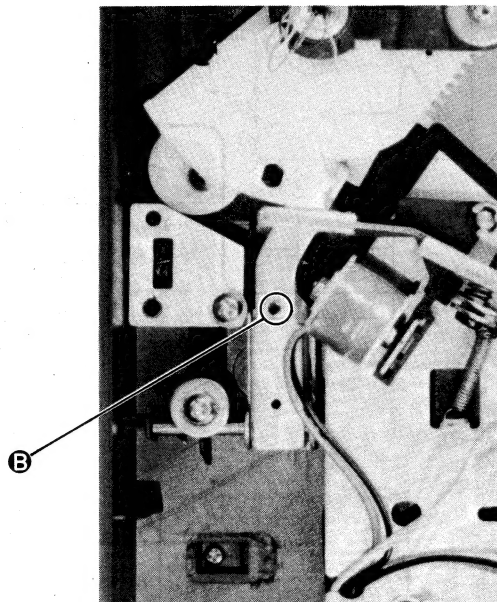
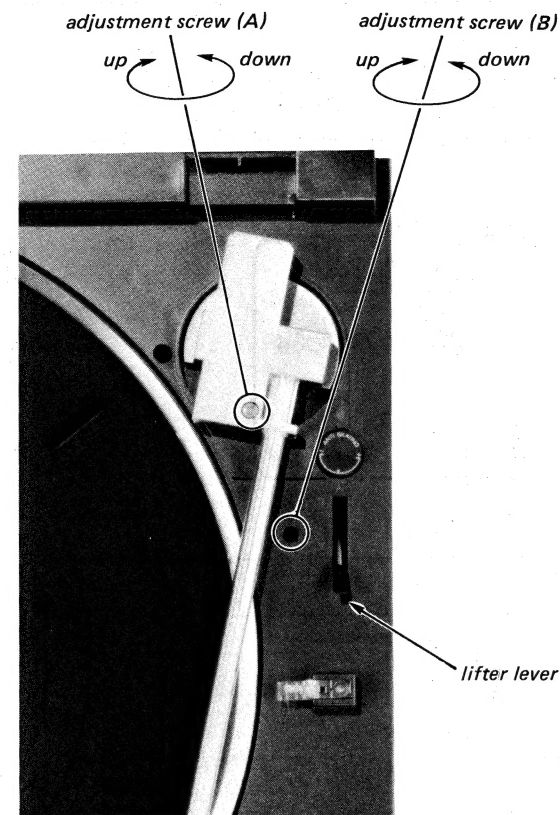
- 1-1. Put a test record on the mat.
Depress the lifter lever to make a lifter-down mode (▽).
- 1-2. Move the arm on out-of-groove of a record by hand.
- 1-3. Adjust the adjustment screw (A) so that the stylus height **A** from face of a record becomes in 5.5mm to 7mm (7/32" to 9/32").
- 1-4. Move the arm on inner-groove of a record by hand and confirm that the stylus height **A** from face of a record becomes in 5.5mm to 7mm (7/32" to 9/32").
- 1-5. Return the arm to the armrest.



2. Manual

- 2-1. Put a test record on the mat.
- 2-2. Move the arm on inner most-groove of a record by hand.
Rotate the turntable by hand and descend the arm.
- 2-3. Depress the lifter lever to make a lifter-up mode (▽).
- 2-4. Move the arm on out-of-groove of a record by hand.
- 2-5. Adjust the adjustment screw (B) so that the stylus height **A** from face of a record becomes in 4.5mm to 6mm (11/64" to 1/4").
- 2-6. Move the arm on inner-groove of a record by hand.
Confirm that the stylus height **A** from face of a record becomes in 4.5mm to 6mm (11/64" to 1/4").
- 2-7. Moveover approach the arm to center of a record by hand.
Rotate the turntable by hand and return the arm.
- 2-8. Secure the portion **B** with locking compound..

Note: The difference of stylus height between Automatic and Manual operations is within 2mm (3/32"), but stylus height of Manual operation is not higher than that of Automatic operation.

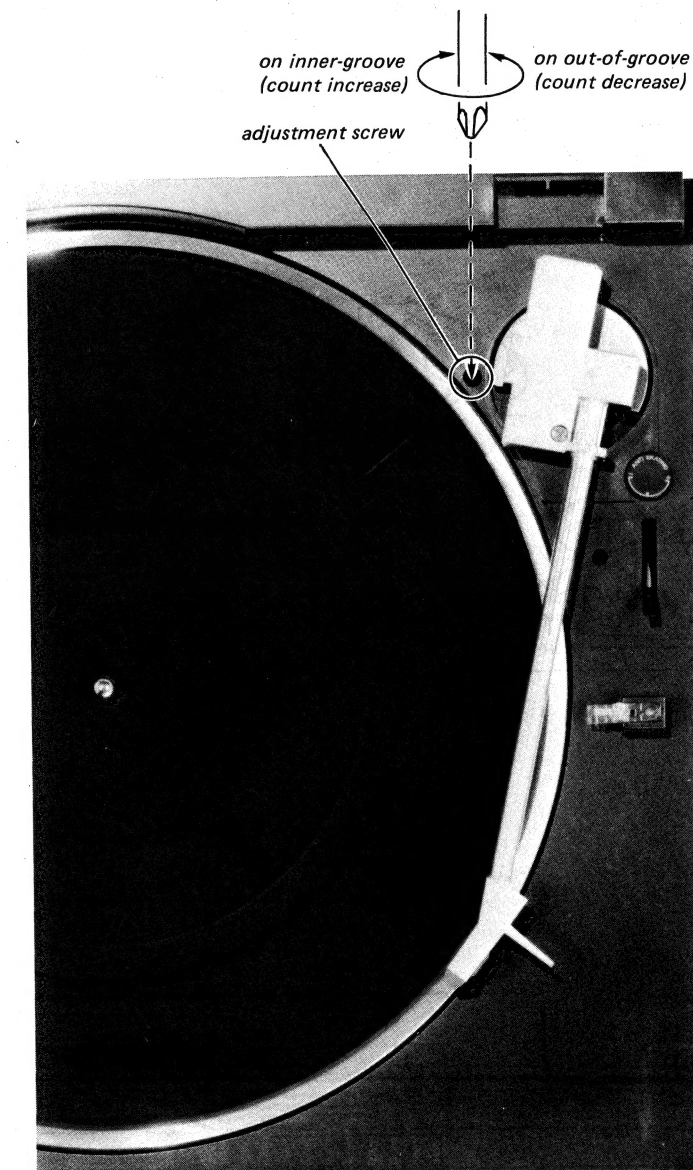


Stylus Drop-point Adjustment

Note: Stylus force adjustment should be completed.

1. Put a test record YFSC-16 on the mat.
2. Set the SPEED switch to 33.
3. Press the START/STOP button.
4. By using a screwdriver, turn the adjustment screw so that the stylus tip drops on the record at the 9-13 counts position.

Note: The proper adjustment for a 30cm record is also correct for a 17cm record.



2-2. ELECT

Speed Adj

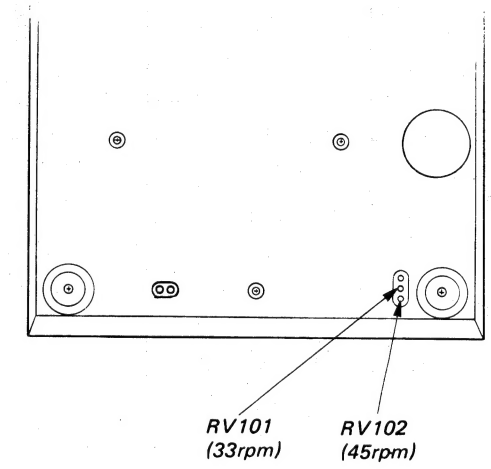
Note: Be su

1. Place a
2. Set the
Press th
Adjust
strobos
3. Set the
Adjust

2-2. ELECTRICAL ADJUSTMENT

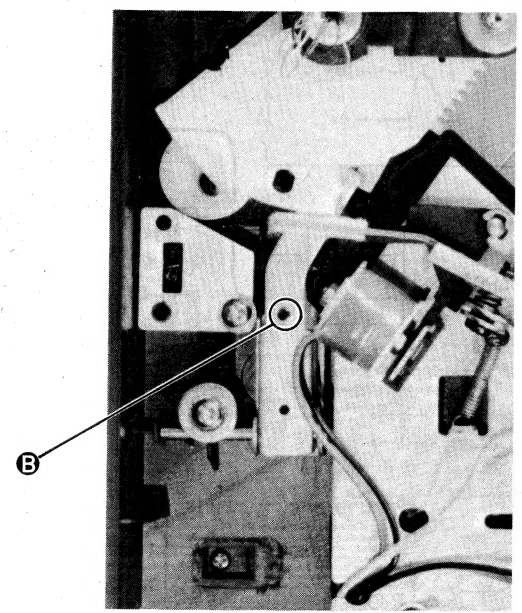
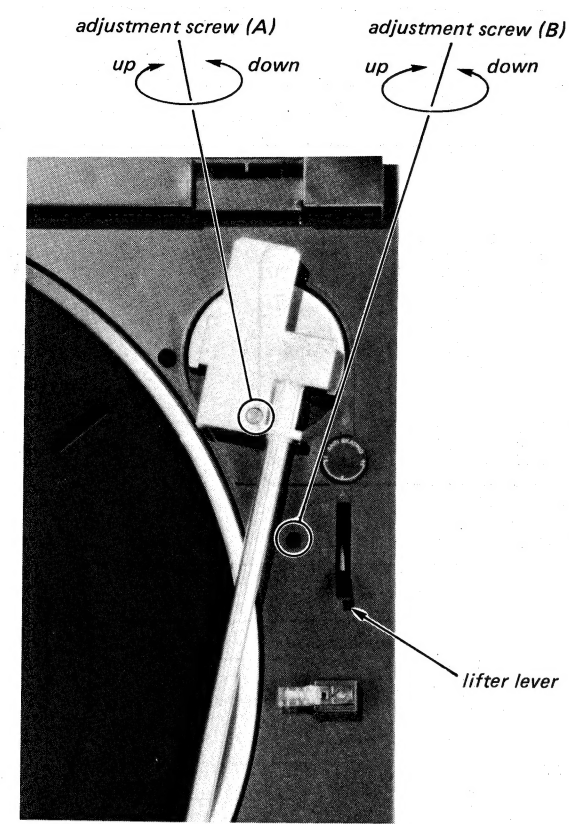
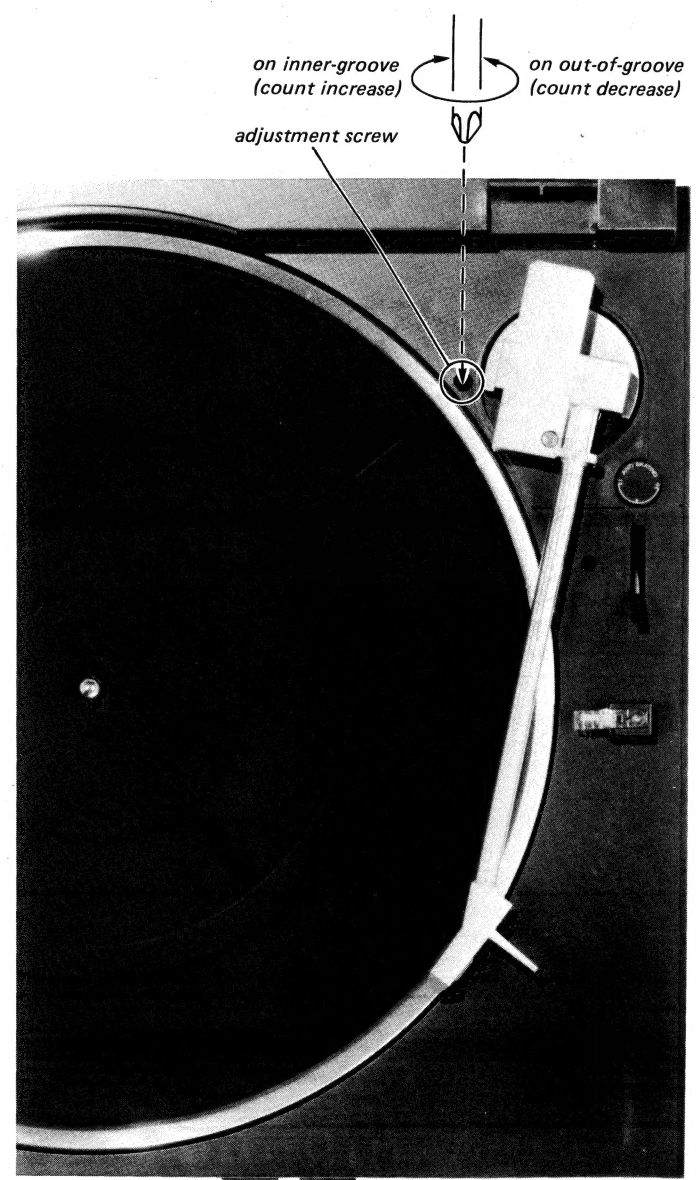
Speed Adjustment

- Note:** Be sure to perform 45rpm adjustment before 33rpm.
1. Place a stroboscope record on the turntable sheet.
 2. Set the SPEED switch to 45.
Press the START/STOP button.
Adjust RV102 so that the stripped pattern of stroboscope board is stationary.
 3. Set the SPEED switch to 33.
Adjust RV101 in the same way.

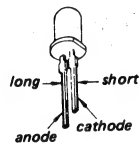
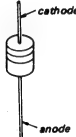
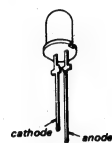
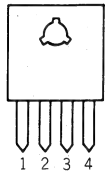
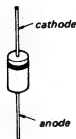
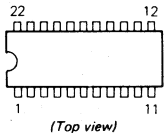


Stylus Drop-point Adjustment

- Note:** Stylus force adjustment should be completed.
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 3. Press the START/STOP button.
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- Note:** The proper adjustment for a 30cm record is also correct for a 17cm record.

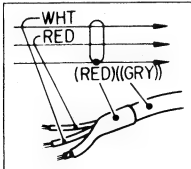


- **Semiconductor Lead Layouts**



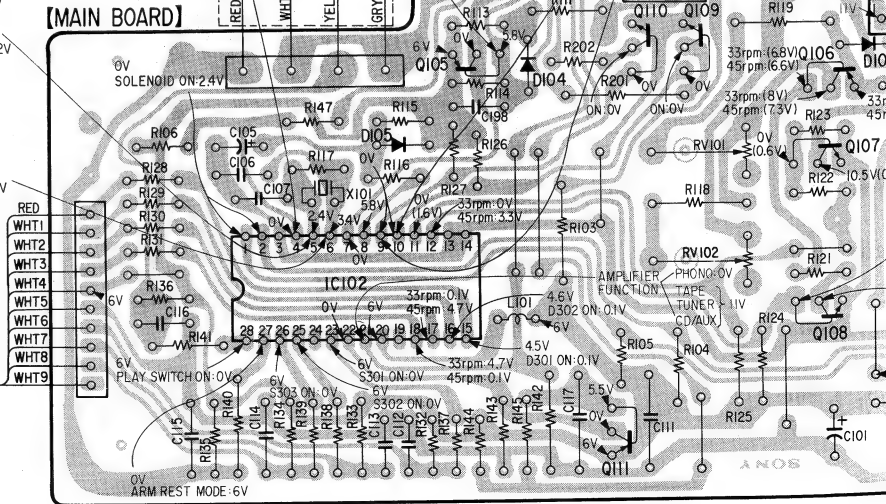
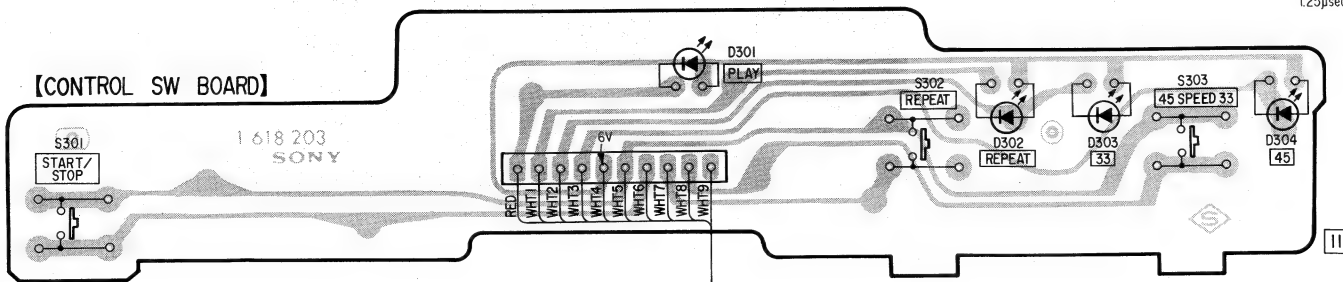
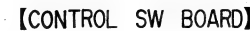
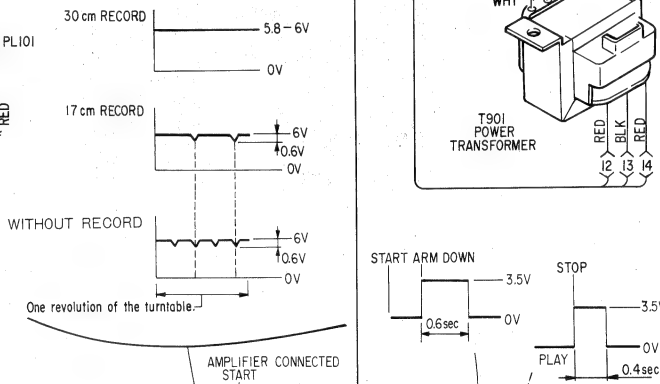
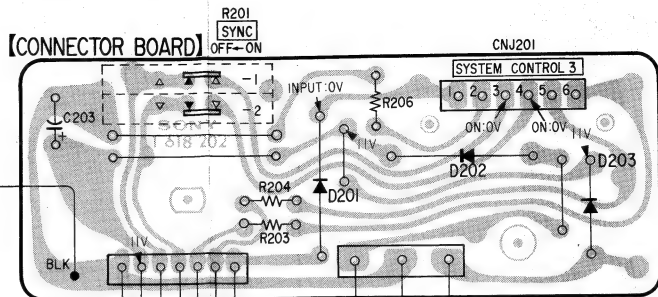
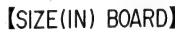
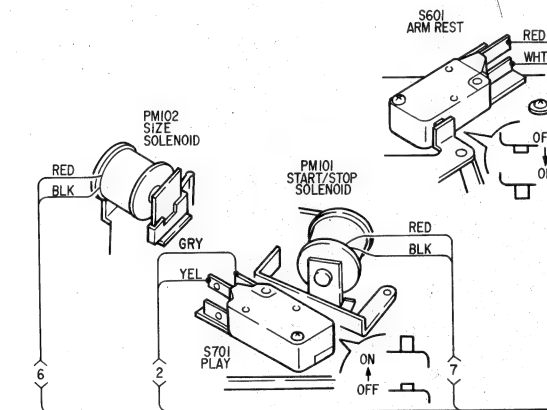
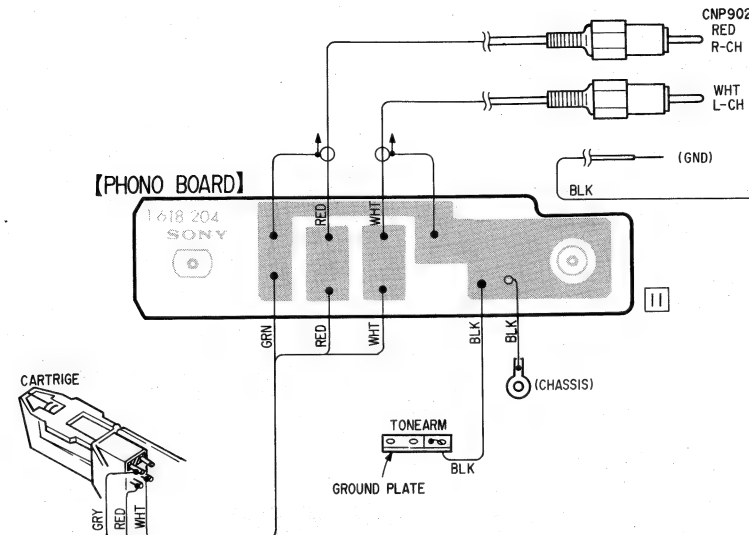
Note:

- Color code of sleeving over the end of the jacket.

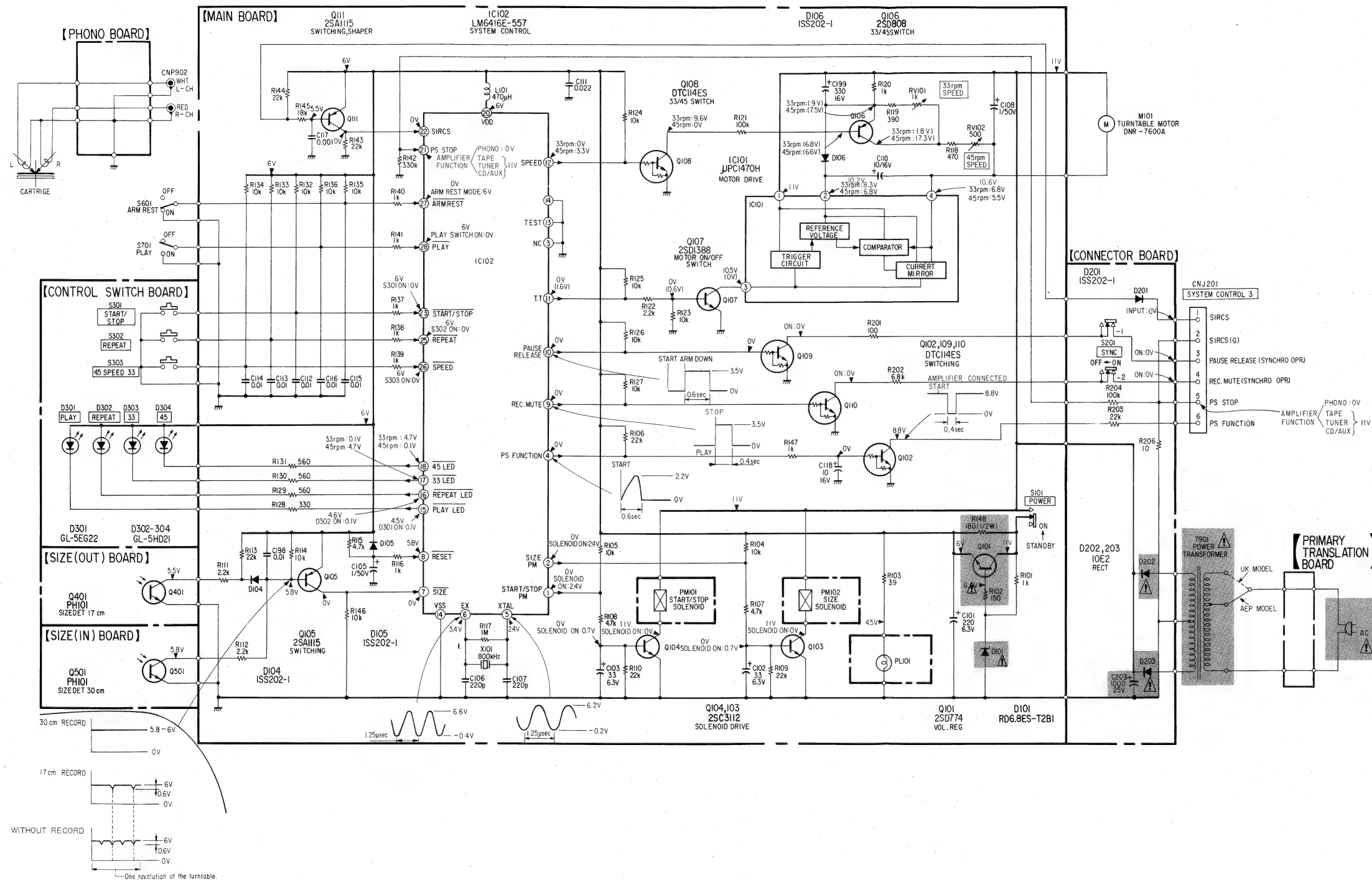


- ○—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.

3-1. MOUNTING DIAGRAM



3-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- --- : B+ bus.
- \square : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50k Ω /V).
no mark: STOP
() : PLAY
- Voltage variations may be noted due to normal production tolerances.

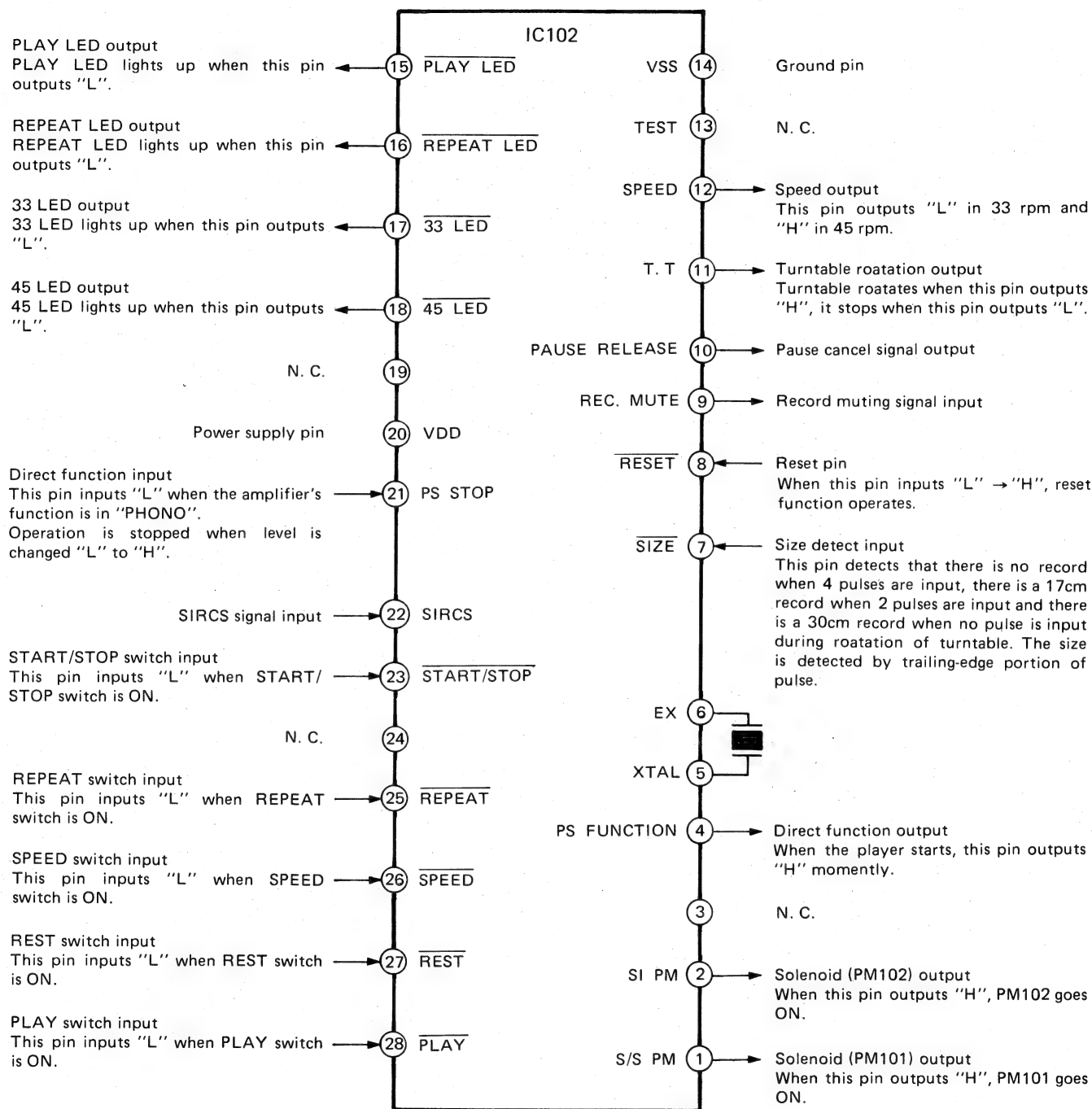
Switch

Ref. No.	Switch	Position
S101	POWER	OFF
S201	SYNC	ON
S301	START/STOP	OFF
S302	REPEAT	OFF
S303	SPEED	OFF
S601	ARM REST	ON
S701	PLAY	OFF

Note: The components identified by shading and mark \triangle are critical for safety. Replace only with part number specified.

[IC102 (LM6414E-557) PIN FUNCTIONS]

IC102 (LM6414E-557) is an N-MOS 4 bit micro-computer for control integrating ROM, RAM, ALU, I/O port, timer, clock generator and etc., into 1-chip.




SECTION 4

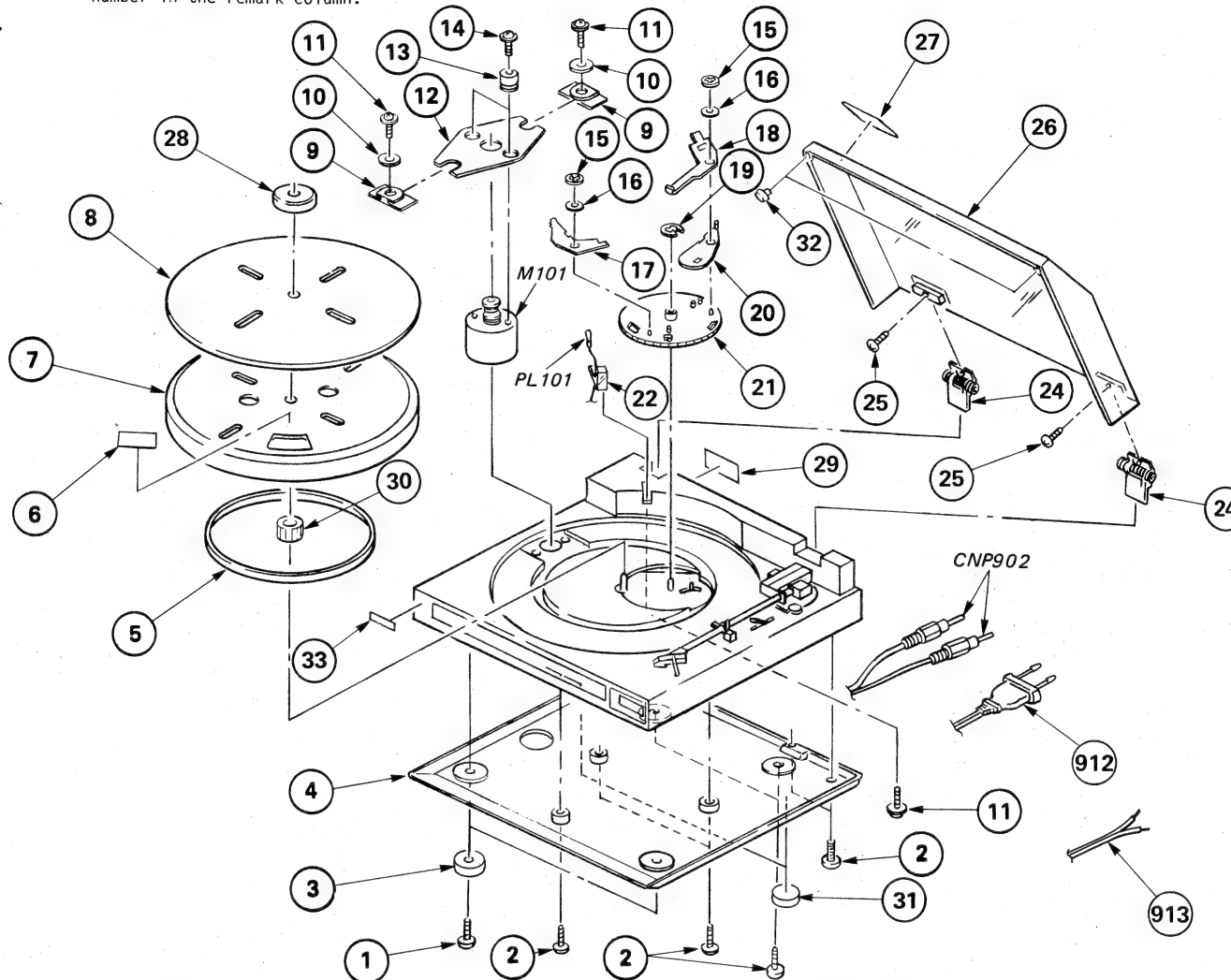
EXPLODED VIEWS AND PARTS LIST



NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

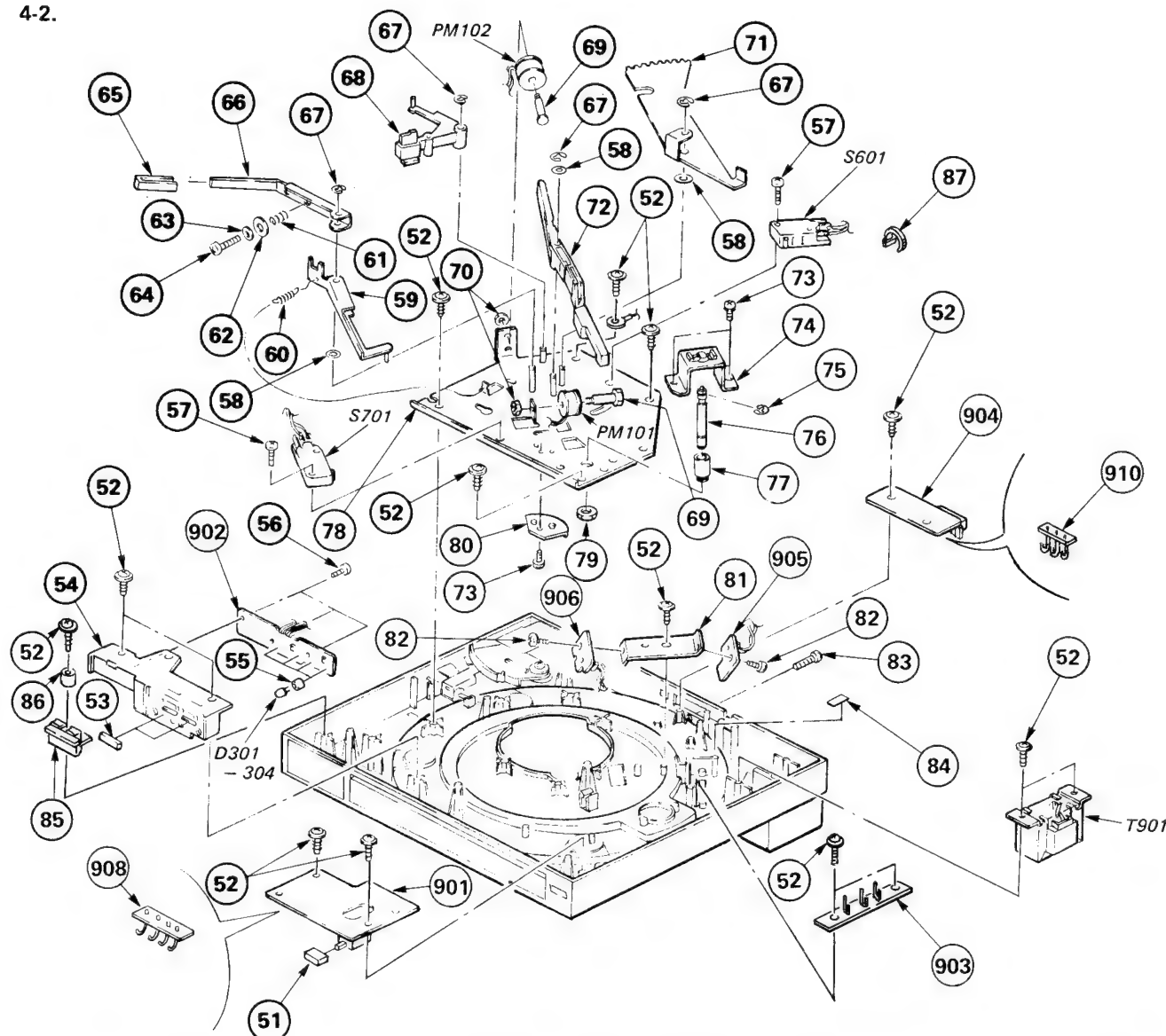
The components identified by shading and mark  are critical for safety. Replace only with part number specified.

4-1.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-685-550-19	SCREW +BTP 3X16 TYPE2 N-S		20	4-874-232-00	CLUTCH (R)	
2	7-685-148-19	SCREW +BVTP 3X12 TYPE2 N-S		21	4-880-524-00	GEAR (S), DRIVE	
3	X-4909-016-1	INSULATOR ASSY		22	4-908-110-01	COVER, LAMP	
4	*X-4913-502-1	PLATE ASSY, BOTTOM		24	4-885-731-31	HINGE	
5	4-880-655-01	BELT		25	7-682-546-04	SCREW +B 3X5	
6	*4-909-004-01	LABEL, CAUTION, GEAR		26	X-4913-511-1	COVER ASSY, DUST	27, 32
7	X-4909-004-1	TURNTABLE ASSY	30	27	3-703-705-41	STICKER, SONY SYMBOL (30)	
8	4-909-059-02	SHEET, TURNTABLE		28	3-701-806-00	ADAPTOR, 45, (E)	
9	4-908-120-01	RUBBER, FLOATING		29	*4-913-507-01	(AEP)...LABEL, MODEL NUMBER	
10	*4-301-647-00	WASHER, SPECIAL			4-913-509-01	(UK)...LABEL, MODEL NUMBER	
11	3-703-137-00	SCREW, TAPPING		30	4-868-052-00	GEAR, CENTER	
12	*4-908-151-01	BRACKET (C), MOTOR		31	*4-913-527-01	FOOT	
13	4-909-061-01	CUSHION, MOTOR		32	4-885-183-00	CUSHION (D)	
14	4-909-062-01	SCREW, MOTOR		33	4-912-106-01	EMBLEM, SONY	
15	7-624-190-81	STOP RING 2, TYPE-CS					
16	7-623-105-15	W 2, MIDDLE		912	 1-534-817-XX	(AEP)...CORD, POWER, EURO PLUG	
17	4-874-279-00	CLUTCH (L)		913	 1-556-562-11	(UK)...CORD, POWER	
18	4-874-254-00	CLUTCH (S)		CNP902	1-551-294-00	CORD (WITH PLUG)	
19	7-624-106-04	STOP RING 3.0, TYPE -E		M101	8-835-126-01	MOTOR, DC (DNR-7600A)	

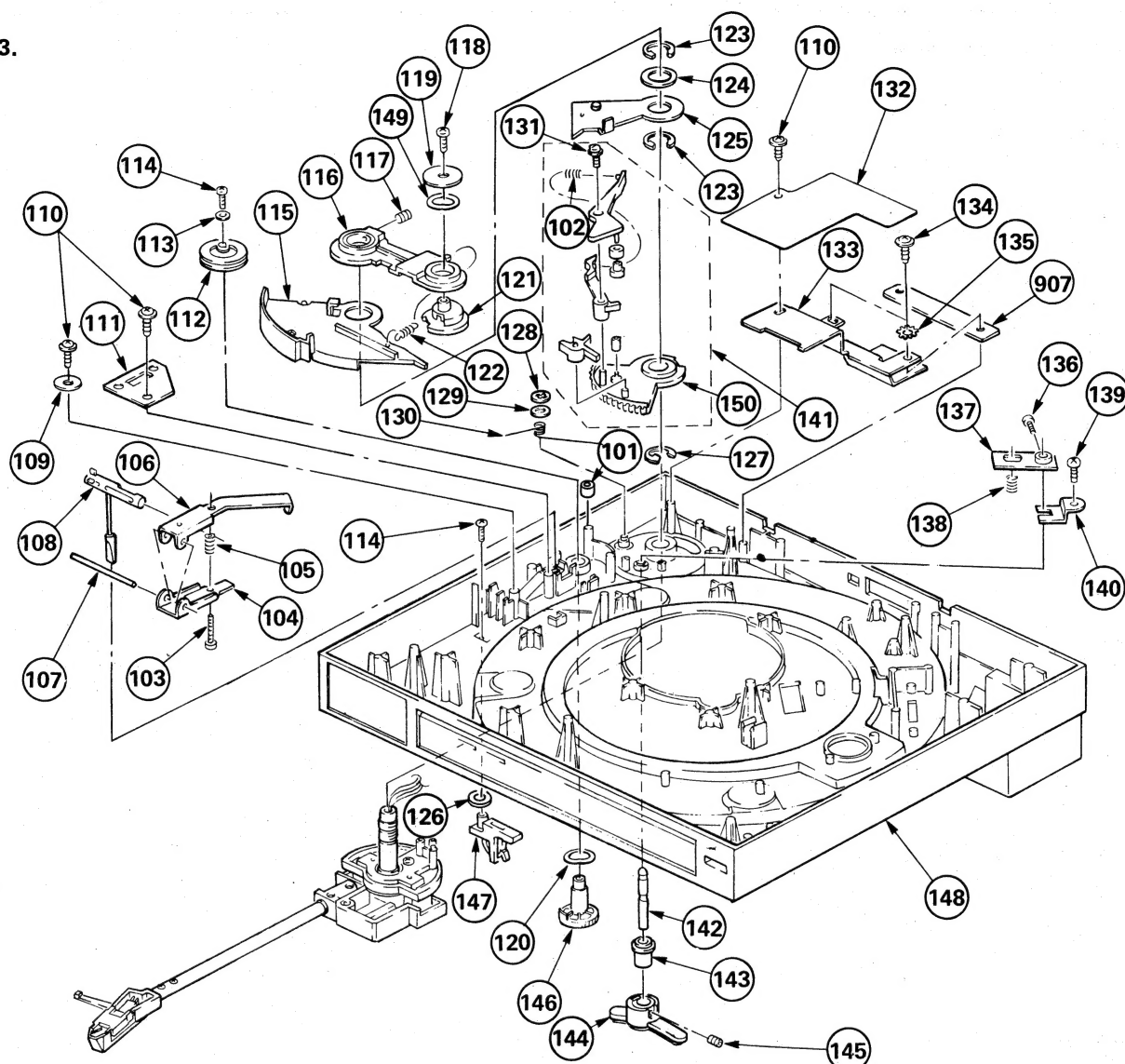
4-2.



No.	Part No.	Description	Remarks
51	4-907-928-01	BUTTON, POWER	
52	3-703-137-00	SCREW, TAPPING	
53	4-908-111-01	BUTTON (B), CONTROL	
54	*4-913-517-01	BASE, CONTROL BUTTON	
55	*4-901-657-00	SPACER (A), LED	
56	7-685-134-14	SCREW +P 2.6X8 TYPE2 NON-SLIT	
57	7-685-755-01	SCREW +PTT 3X14 (S)	
58	3-701-441-21	WASHER	
59	*X-4909-010-1	LEVER ASSY, RESET	
60	4-909-085-01	SPRING, TENTION	
61	4-909-031-01	SPRING (BRAKE B), COMPRESSION	
62	*4-301-647-00	WASHER, SPECIAL	
63	4-812-554-00	WASHER	
64	*7-682-551-09	SCREW +B 3X14	
65	4-874-275-00	PAD, BRAKE	
66	*4-909-030-01	LEVER (B), BRAKE	
67	7-624-106-04	STOP RING 3.0, TYPE -E	
68	X-4909-008-1	LEVER (DP) ASSY, SIZE	
69	4-874-234-00	CORE	
70	7-622-207-05	N 2.6, TYPE 2	
71	*X-4909-007-1	LEVER ASSY, MAIN	
72	X-4909-006-1	LEVER ASSY, CLUTCH	
73	7-682-546-04	SCREW +B 3X5	

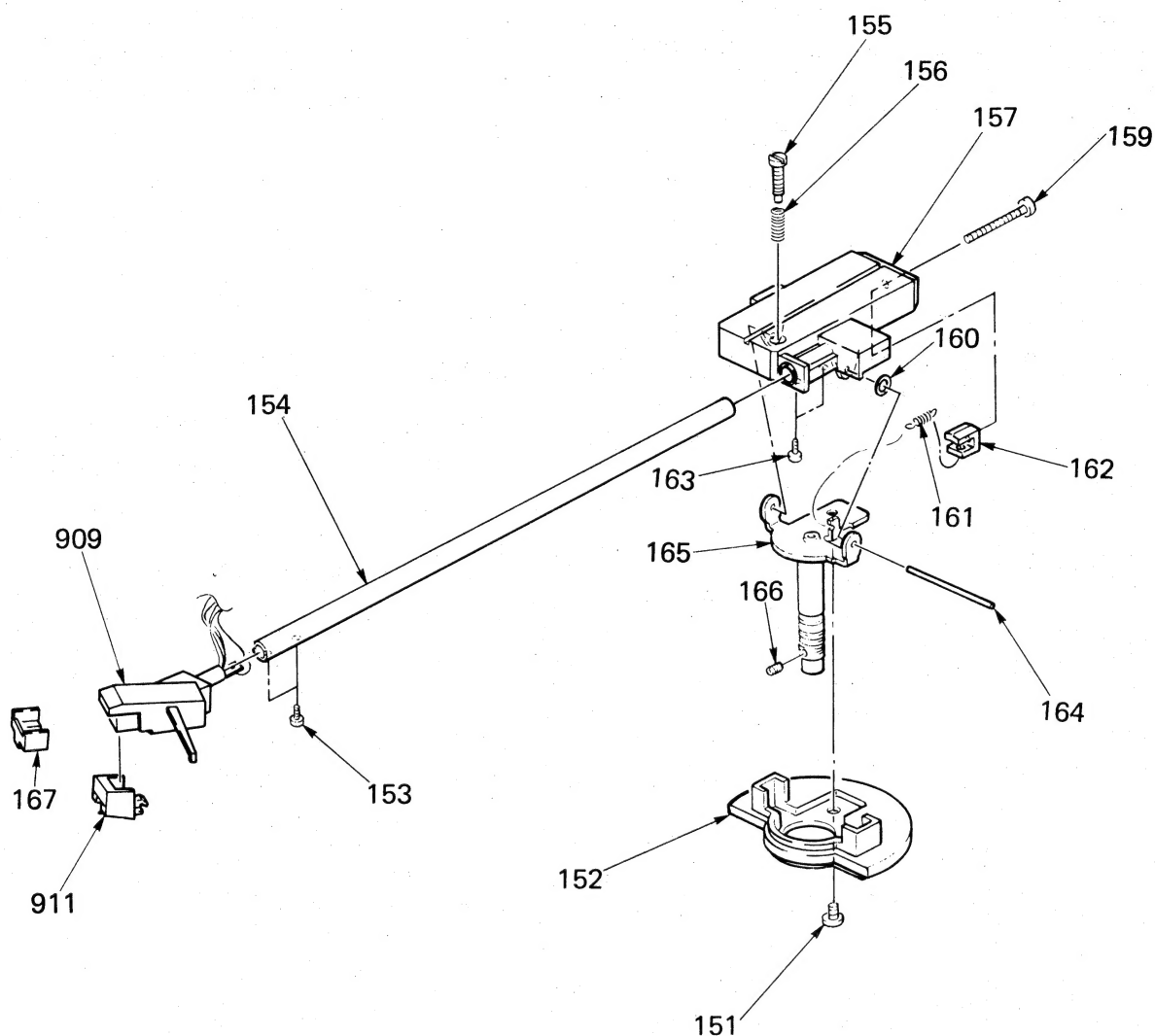
No.	Part No.	Description	Remarks
74	*4-909-021-01	BRACKET, BEARING	
75	7-624-133-34	STOP RING 8, TYPE-CE	
76	4-908-103-01	SHAFT, CENTER	
77	4-909-022-01	BEARING (B)	
78	*X-4909-015-1	CHASSIS ASSY	
79	4-909-084-01	NUT, BEARING	
80	*4-909-023-01	RETAINER, CLUTCH	
81	*4-909-037-01	BRACKET, SENSOR	
82	7-685-750-04	SCREW +PTT 3X5 (S)	
83	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
84	3-831-441-XX	CUSHION (B), CABINET	
85	4-913-516-21	BUTTON, START	
86	*4-913-528-01	SPACER, BUTTON	
87	*3-701-748-00	CLAMP	
901	*A-4619-283-A	MOUNTED PCB, SYSTEM CONTROL	
902	*1-618-203-11	PC BOARD, CONTROL SW	
903	*1-608-536-00	PC BOARD, PRIMARY TRANSLATION	
904	*1-618-202-11	PC BOARD, 6P CONNECTOR	
905	*1-614-855-11	PC BOAR, SIZE (OUT)	
906	*1-614-854-11	PC BOAR, SIZE (IN)	
908	*1-508-801-00	U TYPE BASE POST 4P	
910	*1-508-800-13	U TYPE BASE POST 3P	

4-3.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	*4-903-453-01	CUSHION (C)		126	*4-913-524-01	SPACER, REST	
102	4-876-347-01	SPRING, COMPRESSION		127	7-624-133-54	STOP RING 10, TYPE-CE	
103	7-621-775-80	SCREW +B 2.6X16		128	7-624-190-31	STOP RING 4, TYPE-CS	
104	*4-909-038-01	LEVER, LIFTER		129	7-688-004-11	W 4, MIDDLE	
105	4-880-503-00	SPRING, COMPRESSION		130	4-909-067-01	SPRING, IFC	
106	*4-880-501-00	LEVER (A), LIFTER		131	7-687-202-21	TOTSU PTPWH 2X4, TYPE 2, SLIT	
107	*4-881-611-00	SHAFT, LEVER, LIFTER		132	*4-909-006-01	PLATE (B), SHIELD	
108	4-909-012-01	CAM, LIFTER		133	*4-909-007-01	PLATE (A), SHIELD	
109	*4-301-647-00	WASHER, SPECIAL		134	3-703-136-00	SCREW, TAPPING	
110	3-703-137-00	SCREW, TAPPING		135	7-623-422-07	LW 3, TYPE B	
111	*4-909-009-01	RETAINER, CAM		136	7-621-255-25	SCREW +P 2X4	
112	*4-887-903-00	CAM, IFC		137	*X-4909-011-1	GUIDE ASSY, LIFTER	
113	7-688-002-11	W 2.6, MIDDLE		138	4-909-099-01	SPRING, COMPRESSION (LIFTER D)	
114	7-685-134-14	SCREW +P 2.6X8 TYPE2 NON-SLIT		139	3-703-135-00	SCREW, TAPPING	
115	4-909-045-03	LEVER (C), ARM		140	*4-909-008-11	RETAINER (P)	
116	4-909-056-01	LEVER (D), ARM		141	X-4909-012-1	LEVER (D) ASSY, INDEX	
117	3-701-507-00	SET SCREW, DOUBLE POINT, (M3X5)		142	4-909-034-01	ROD (A), PUSH	
118	7-685-144-19	SCREW +P 3X5 TYPE2 NON-SLIT		143	4-909-033-01	CASE (A), ROD, PUSH	
119	0-056-028-00	WASHER, PLAIN, 14 DIA.		144	X-4909-002-1	PLATE ASSY, UP AND DOWN	
120	4-844-041-00	WASHER, (N)		145	7-621-738-08	SET-SCT, HEX. 2.6X4, FLAT POINT	145
121	4-909-046-01	CAM, ECCENTRIC		146	4-909-010-01	KNOB, IFC	
122	3-548-124-00	SPRING, TENSION		147	X-4909-030-1	REST SUB ASSY, ARM	
123	7-624-133-44	STOP RING 9, TYPE-CE		148	X-4913-501-1	FRAME ASSY	
124	4-911-107-	POLY-SLIDER (DIA. 9.5)(LARGE)		149	4-844-041-11	WASHER, (N)	
125	*X-4909-003-1	LEVER (E) ASSY, INDEX		150	4-909-055-01	LEVER (D), INDEX	
				907	*1-618-204-11	PC BOARD, PHONO	

4-4.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	7-682-546-04	SCREW +B 3X5		161	4-913-515-01	SPRING, TENSION	
152	4-909-051-01	BASE, ARM		162	*4-909-016-01	HOOK, SPRING	
153	7-685-773-04	SCREW +PTT 1.7X3		163	7-685-102-19	SCREW +P 2X4 TYPE2 SLIT	
154	4-909-052-01	PIPE, ARM		164	*4-909-014-01	PIN, HORIZONTAL	
155	4-909-086-01	SHAFT (B), HEIGHT ADJUSTMENT		165	X-4909-014-1	BRACKET ASSY, ROTARY	166
156	4-887-918-00	SPRING, COMPRESSION		166	7-621-712-17	SET-SCREW, SLOT 2.6X2 CUP POINT	
157	X-4909-005-1	JOINT ASSY, PIPE		167	3-706-613-00	PROTECTOR	
159	7-682-550-04	SCREW +B 3X12		909	1-549-124-41	CARTRIDGE (VL-42GSE2)	167,911
160	3-701-437-01	WASHER		911	1-549-112-00	STYLUS (ND-142G)	

SECTION 5 ELECTRICAL PARTS LIST

NOTE:

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:

UA....: μA..., UPA....: μPA..., UPC....: μPC,

UPD....: μPD...

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.



ELECTRICAL PARTS

Ref.No.	Part No.	Description				
901	*A-4619-283-A	MOUNTED PCB, SYSTEM CONTROL				
902	*1-618-203-11	PC BOARD, CONTROL SW				
903	*1-608-536-00	PC BOARD, PRIMARY TRANSLATION				
904	*1-618-202-11	PC BOARD, 6P CONNECTOR				
905	*1-614-855-11	PC BOAR, SIZE (OUT)				
906	*1-614-854-11	PC BOAR, SIZE (IN)				
907	*1-618-204-11	PC BOARD, PHONO				
908	*1-508-801-00	U TYPE BASE POST 4P				
909	1-549-124-41	CARTRIDGE (VL-42GSE2)			167,911	
910	*1-508-800-13	U TYPE BASE POST 3P				
911	1-549-112-00	STYLUS (ND-142G)				
912	▲ 1-534-817-XX	(AEP)...CORD, POWER, EURO PLUG				
913	▲ 1-556-562-11	(UK)...CORD, POWER				
C101	1-123-308-00	ELECT	220MF	20%	6.3V	
C102	1-123-318-00	ELECT	33MF	20%	6.3V	
C103	1-123-318-00	ELECT	33MF	20%	6.3V	
C105	1-123-611-00	ELECT	1MF	20%	50V	
C106	1-162-286-31	CERAMIC	220PF	10%	50V	
C107	1-162-286-31	CERAMIC	220PF	10%	50V	
C108	1-123-611-00	ELECT	1MF	20%	50V	
C110	1-123-617-00	ELECT	10MF	20%	16V	
C111	1-161-494-00	CERAMIC	0.022MF	30%	25V	
C112	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C113	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C114	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C115	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C116	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C117	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C118	1-123-617-00	ELECT	10MF	20%	16V	
C198	1-162-306-31	CERAMIC	0.01MF	30%	16V	
C199	1-123-322-00	ELECT	330MF	20%	16V	
C203	▲ 1-124-557-11	ELECT	1000MF	20%	25V	
CNJ101	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P				
CNJ201	1-563-102-11	SOCKET, CONNECTOR 6P				
CNP902	1-551-294-00	CORD (WITH PLUG)				
D101	▲ 8-719-168-07	DIODE RD6.8E-B				
D104	8-719-911-19	DIODE 1SS119				
D105	8-719-911-19	DIODE 1SS119				
D106	8-719-911-19	DIODE 1SS119				
D201	8-719-911-19	DIODE 1SS119				
D202	8-719-200-02	DIODE 10E2				
D203	8-719-200-02	DIODE 10E2				
D301	8-719-811-44	DIODE TLG114A				
D302	8-719-906-58	DIODE GL-5HD21				
D303	8-719-906-58	DIODE GL-5HD21				
D304	8-719-906-58	DIODE GL-5HD21				

ELECTRICAL PARTS


Ref.No.	Part No.	Description				
IC101	8-759-103-35	IC UPC1470H				
IC102	8-759-801-85	IC LM6416E-557				
L101	1-407-177-XX	MICRO INDUCTOR 470UH				
M101	8-835-126-01	MOTOR, DC (DNR-7600A)				
PL101	1-518-169-XX	LAMP, PILOT				
PM101	1-454-394-11	SOLENOID, PLUNGER				
PM102	1-454-394-11	SOLENOID, PLUNGER				
Q101	▲ 8-729-177-43	TRANSISTOR 2SD774				
Q102	8-729-900-89	TRANSISTOR DTC114ES				
Q103	8-729-201-84	TRANSISTOR 2SC3112B				
Q104	8-729-201-84	TRANSISTOR 2SC3112B				
Q105	8-729-117-54	TRANSISTOR 2SA1175				
Q106	8-729-800-83	TRANSISTOR 2SB808				
Q107	8-729-802-34	TRANSISTOR 2SD1388				
Q108	8-729-900-89	TRANSISTOR DTC114ES				
Q109	8-729-900-89	TRANSISTOR DTC114ES				
Q110	8-729-900-89	TRANSISTOR DTC114ES				
Q111	8-729-117-54	TRANSISTOR 2SA1175				
Q401	8-729-101-01	TRANSISTOR PH101				
Q501	8-729-101-01	TRANSISTOR PH101				
R101	1-247-831-00	CARBON	1K	5%	1/6W	
R102	▲ 1-247-811-00	CARBON	150	5%	1/6W	
R103	1-247-695-11	CARBON	39	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/6W	
R105	1-249-429-11	CARBON	10K	5%	1/6W	
R106	1-249-433-11	CARBON	22K	5%	1/6W	
R107	1-249-425-11	CARBON	4.7K	5%	1/6W	
R108	1-249-425-11	CARBON	4.7K	5%	1/6W	
R109	1-249-433-11	CARBON	22K	5%	1/6W	
R110	1-249-433-11	CARBON	22K	5%	1/6W	
R111	1-249-421-11	CARBON	2.2K	5%	1/6W	
R112	1-249-421-11	CARBON	2.2K	5%	1/6W	
R113	1-249-433-11	CARBON	22K	5%	1/6W	
R114	1-249-429-11	CARBON	10K	5%	1/6W	
R115	1-249-425-11	CARBON	4.7K	5%	1/6W	
R116	1-247-831-00	CARBON	1K	5%	1/6W	
R117	1-247-903-00	CARBON	1M	5%	1/6W	
R118	1-214-721-00	METAL	470	1%	1/4W	
R119	1-214-717-00	METAL	330	1%	1/4W	
R120	1-247-831-00	CARBON	1K	5%	1/6W	
R121	1-247-879-00	CARBON	100K	5%	1/6W	
R122	1-249-421-11	CARBON	2.2K	5%	1/6W	
R123	1-249-429-11	CARBON	10K	5%	1/6W	
R124	1-249-429-11	CARBON	10K	5%	1/6W	

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R125	1-249-429-11	CARBON	10K	5%	1/6W
R126	1-249-429-11	CARBON	10K	5%	1/6W
R127	1-249-429-11	CARBON	10K	5%	1/6W
R128	1-247-819-00	CARBON	330	5%	1/6W
R129	1-249-414-11	CARBON	560	5%	1/6W
R130	1-249-414-11	CARBON	560	5%	1/6W
R131	1-249-414-11	CARBON	560	5%	1/6W
R132	1-249-429-11	CARBON	10K	5%	1/6W
R133	1-249-429-11	CARBON	10K	5%	1/6W
R134	1-249-429-11	CARBON	10K	5%	1/6W
R135	1-249-429-11	CARBON	10K	5%	1/6W
R136	1-249-429-11	CARBON	10K	5%	1/6W
R137	1-247-831-00	CARBON	1K	5%	1/6W
R138	1-247-831-00	CARBON	1K	5%	1/6W
R139	1-247-831-00	CARBON	1K	5%	1/6W
R140	1-247-831-00	CARBON	1K	5%	1/6W
R141	1-247-831-00	CARBON	1K	5%	1/6W
R142	1-247-891-00	CARBON	330K	5%	1/6W
R143	1-249-433-11	CARBON	22K	5%	1/6W
R144	1-249-433-11	CARBON	22K	5%	1/6W
R145	1-249-432-11	CARBON	18K	5%	1/6W
R146	1-249-429-11	CARBON	10K	5%	1/6W
R147	1-247-831-00	CARBON	1K	5%	1/6W
R148 	1-247-742-11	CARBON	180	5%	1/2W
R201	1-247-807-00	CARBON	100	5%	1/6W
R202	1-247-851-00	CARBON	6.8K	5%	1/6W
R203	1-249-433-11	CARBON	22K	5%	1/6W
R204	1-247-879-00	CARBON	100K	5%	1/6W
R206	1-247-783-00	CARBON	10	5%	1/6W
RV101	1-226-233-00	RES, ADJ, CARBON 1K			
RV102	1-226-232-00	RES, ADJ, CARBON 500			
S101	1-553-909-00	SWITCH, PUSH (1 KEY)(POWER)			
S201	1-570-150-11	SWITCH, SLIDE (SYNC)			
S301	1-553-856-00	SWITCH, KEY BOARD (START/STOP)			
S302	1-553-856-00	SWITCH, KEY BOARD (REPEAT)			
S303	1-553-856-00	SWITCH, KEY BOARD (SPEED)			
S601	1-570-489-11	SWITCH, MICRO			
S701	1-570-489-11	SWITCH, MICRO			
T901 	1-447-257-00	TRANSFORMER, POWER			
X101	1-567-342-11	OSCILLATOR, CERAMIC			

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-701-630-00	BAG, POLYETHYLENE
3-701-634-00	BAG, POLYETHYLENE
3-703-845-01	(UK)....LABEL, (N) U/C MAIN CAUTION
3-765-064-11	MANUAL, INSTRUCTION
3-765-064-41	MANUAL, INSTRUCTION
3-794-123-11	LABEL, CAUTION
4-876-344-00	(AEP)...LABEL, CAUTION POWER CORD
4-879-798-00	SHEET, PROTECTION
4-880-334-00	CUSHION, ARM
4-887-948-00	HOLDER, TURNTABLE
4-909-068-01	CUSHION (LEFT)
4-909-069-01	CUSHION (RIGHT)
4-909-071-01	SPACER, CLUTCH
4-909-072-01	PROTECTOR
4-913-525-11	(AEP)...INDIVIDUAL CARTON

The components identified by shading and mark  are critical for safety. Replace only with part number specified.